About milling cutter, does suitable mill goagainst mill how to be chosen?aa

Above all, milling cutter direction of rotation and workpiece feedway are opposite. Every age when milling cutting ply from 0arrive gradually the biggest cut after that, this makes go againstmill.

Next, when milling cutter direction of rotation and workpiece feeddirection identical. Every age when milling cutting ply from thebiggest reduce gradually 0, this makes arrange mill.

About arranging mill He Nixi, respective characteristic is brief andwraparound as follows:

The first, when the change of cutting ply goes against mill, thecutting ply of every tooth by 0 add to the biggest. But cuttingblade is not absolutely and sharp, point of milling cutter pointalways has circular arc to exist, tooth cannot cut workimmediately, already machining however apparently extrudingglides, makethe sclerotic phenomenon of this surface serious,affected exterior quality, also make of tooth wear away aggravate. The cutting ply of the tooth when suitable mill is fromthe biggest to 0, but the wallop when tooth cuts work is bigger,especially workpiece work surface is when semifinished productis crusty perhaps. (View 2) when going against mill, the toothwhen going against mill by inside the cutting outside living,cutting by thin thickening, tooth from already machined thesurface to be cut, advantageous to the use of milling cutter,cannot cut metallic layer immediately after milling cutter toothcontacts workpiece, be in however workpiece surface glide isapart from small paragraph one, in slip process, as a result of intense friction, can produce much quantity of heat, be in at thesame time work surface is easy form sclerotic layer, reduced thedurability of cutting tool, influence workpiece surface is bright andclean degree, bring to cutting adverse. When suitable mill, ply ofthe cutting when tooth begins to be contacted with workpiece isthe biggest, and begin to be cut from exterior horniness layer,tooth gets very big concussion negative charge, milling cutterbecomes blunt faster, but tooth is cut do not have slippage phenomenon into the process. In the meantime, suitable mill alsomore be helpful for discharging bits. Answer to use treatment ofsuitable mill law as far as possible commonly, be machined inorder to rise of spare parts surface bright and clean degree,assure dimension precision. But there is horniness layer on cutting face, accumulate broken bits, workpiece surface isuneven more remarkable when, should use the method that goagainst mill.

The 2nd, the FfN of perpendicular cutting component of force that the influence of cutting force direction arranges the action when mill to go up at workpiece approachs next work from beginning to end, this is advantageous to the clamp of workpiece. The FfN when going against mill up, have the tendency that raises workpiece, easy cause vibration, affect the clamp of workpiece. The impact when mill thin wall and stiffness poor work is bigger. The shift of milling machine workbench is by drive of guide screw nut, there is whorl space between guide screw nut. The workpiece when suitable mill gets Ff of fore-and-aft component of force and feed movement way are same, and general advocate athletic speed is morethan F of feed speed ? , accordingly fore-and-aft cent has the tendency with the whorl transmissiondetached side that makes contact into Ff, the hard spot that cuts material to go up when milling cutter orwait for a reason because of cutting ply change, cause F F of fore-and-aft component of force toincrease, when exceeding obstruction of workbench feed attrition, it is whorl formerly deputy the athleticform thatpromote turned the movement that drives workbench change to move by milling cutter into theform,cause feed to increase suddenly. This kind of change uses an appearance not only can cause "plungeinto a knife " , attaint machines the surface; Serious when still can make tooth breaks off, or makeshift ofworkpiece clamping apparatus, damage even machine tool. The workpiece when going againstmill getsFf of fore-and-aft component of force and feed movement way are opposite, the transmissionworkingface of guide screw and nut is contacted from beginning to end, by whorl deputy driveworkbench tomove. On the milling machine of clearance of nut of indelible guide screw, appropriate isused go againstmill, unfavorable with suitable mill.